

# PATENT ABSTRACTS OF JAPAN

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## (54) ACOUSTIC REPRODUCTION SYSTEM AND METHOD THEREFOR

(57)Abstract:

PURPOSE: To obtain an exact, inexpensive, low power consumption, and small- scaled acoustic reproduction system.

CONSTITUTION: An integrated digital signal processing (DSP) power amplifier 50 includes a pulse generator 32 and a pulse counter, and a pulse width modulation signal is generated. This signal is supplied through an H bridge 33 to a speaker 24 of an acoustic reproduction system. A dynamic feedback control includes a sensor which detects an actual sound issued by the speaker, and generates a corresponding digital signal. This signal is compared with a digital expressed original driving signal and processed by a digital power amplifier so that an error compensation signal can be prepared, and this signal is supplied to the speaker 24. The DSP is integrated and mounted, and suitable for being used while mounted on one unit in, especially, the acoustic system of an automobile.

